ABSTRACT OF THE DISCLOSURE

A method and system for operation of a resilient closed communication network without a dedicated protection network segment. The method uses a resilient closed communication network with at least one communication ring. The method includes the steps of receiving a data packet from a first external network at a first distributing station connected to the network, identifying a second distributing station connected to the network from which the data packet is to be forwarded to a second external network, and determining functioning routes from the first distributing station to the second distributing station. The method also includes the steps of selecting an optimal route among the functioning routes and sending the data packet from the first distributing station to the second distributing station using the optimal route. The system includes a first communication ring and at least two distributing stations interconnected by the first communication ring. The distributing station includes means for receiving a data packet from an external network or from another distributing station, means for identifying a destination distributing station for the data packet. It further includes means for appending the identification number for the destination distributing station to the data packet, means for determining functioning routes to the destination distributing station, and means for selecting an optimal route among the functioning routes. Finally, it also includes means for forwarding the data packet to the external network after removing the identification number from the data packet if the identification number of the distributing station is the same as the identification number appended to the data packet, or otherwise to a next distributing station based on the optimal route.